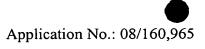
Application No.: 08/160,965 Docket No.: HO-P00965US0

## In the Claims

25217443.1

In the Clan	<u></u>
A. Please su	abstitute the below amended claims for claims 1, 4-20, 22, 24-29, 45, 46.
1.	(Amended five times) An immunological composition comprising:
	a physiologically acceptable non-toxic vehicle containing a purified non-
٠,١	proteolytic cysteine protease, which produces an immune response in a
TA	mammal against Group A streptococcal infection, wherein said cysteine
	protease comprises at least one amino acid substitution and said amino acid
	substitution occurs at the amino acid position selected from the group
	consisting of Lys145, Gln185, Cys192, His340, Asn356 and Trp357.
٠	
4.	(Amended three times) The immunological composition of claim 1, wherein
	said infection is selected from the group consisting of pharyngitis, tonsillitis,
	skin infections, acute rheumatic fever, scarlet fever, post-streptococcal
	glomerulonephritis, and toxic-shock-like syndrome.
_ <sup>5.</sup>	(Amended three times) The immunological composition of claim 1 further
75	comprising a purified streptococcal M protein antigen.
6.	(Amended three times) A method of producing an immune response in
	mammals comprising:
ŧ	administering to a mammal an immunological composition comprising, a
	purified non-proteolytic cysteine in an amount sufficient to produce an
	immune response to a Group A streptococcal infection, wherein said cysteine
	protease comprises at least one amino acid substitution and said amino acid
	substitution occurs at the amino acid position selected from the group
	consisting of Lys145, Gln185, Cys192, His340, Asn356 and Trp357.
T 6 7.	(Amended) The method of claim 6, wherein said immunological composition
	is given by parenteral administration.
7 9.	(Amended) The method of claim 6, wherein said immunological composition





T7		is administered orally.
I8	11.	(Amended) The method of claim 6, wherein said immunological composition is administered in multiple doses.
. Ta	13.	(Amended) The method of claim 12, wherein said immunological composition is given by parenteral administration.
	15.	(Amended) The method of claim 12, wherein said immunological composition is administered orally.
	17.	(Amended) The method of claim 12, wherein said immunological composition is administered in multiple doses.
112	18.	(Amended) The immunological composition of claim 1, where said mammal is human.
I.3	20.	(Amended) The immunological composition of claim 1, wherein said amino acid substitution is selected from the group consisting of Lys145→ Ala145, Cys192→ Ala192, Cys192→ Ser192, His340→ Ala340, Gln185→ Ala185, Asn356→ Ala356 and Trp357→ Ala357.
工件	22.	(Amended) The immunological composition of claim 20, wherein said amino acid substitution is Cys192→ Ala192 or Cys192→ Ser192.
	24.	(Amended) The immunological composition of claim 1, wherein said amino acid substitution occurs at Lys145.
- 15 1	25.	(Amended) The immunological composition of claim 1, wherein said amino acid substitution occurs at Cys192.
J	26.	(Amended) The immunological composition of claim 1, wherein said amino acid substitution occurs at Gln185.
	27.	(Amended) The immunological composition of claim 1, wherein said amino acid substitution occurs at Asn356.
	25217443.1	5

Application No.: 08/160,965 Docket No.: HO-P00965US0

28. 15	(Amended) The immunological composition of claim 1, wherein said amino acid substitution occurs at Trp357.
29.	(Amended) The immunological composition of claim 1, wherein said amino acid substitution occurs at His340.
45. T16	(Amended) An immunological composition comprising a purified non-proteolytic cysteine protease, which produces an immune response to a mammal against Group A streptococcal infection, wherein said cysteine protease comprises at least one amino acid substitution and said amino acid substitution occurs at the amino acid position selected from the group consisting of Lys145, Gln185, Cys192, His340, Asn356 and Trp357.
46.	(Amended) A method of producing an immune response in mammals comprising:  administering to a mammal the immunological composition of claims 1,5, 20, 22, 24, 25, 26, 27, 28, 29, or 44 in an amount sufficient to produce an immune response to a Group A streptococcal infection.

## B. Please delete claims 36-44.